

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

RECEIVED
DEC 23 1996
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)

Advanced Television Systems)
and Their Impact upon the)
Existing Television Broadcast Service)

MM Docket No. 87-268

To: The Commission

DOCKET FILE COPY ORIGINAL

REPLY COMMENTS OF
NATIONAL PUBLIC RADIO, INC.

Neal Jackson

Vice President for Legal Affairs
General Counsel and Secretary

Mary Lou Joseph

Vice President, Member Services

Donald Lockett

Vice President, Engineering and
Information Technology

Michael Starling

Director, Engineering and Operations

Gregory A. Lewis

Assistant General Counsel

December 23, 1996

No. of Copies rec'd 0+9
List ABCDE

Table of Contents

	Page
Introduction and Summary	1
I. The Commission Should Reject the Modified Table Because of its Unjustified Reliance on DTV Channel 6 Allotments. . . .	3
II. The Broadcasters have Not Provided Any Evidence to Substantiate Their Claim that DTV Channel 6 Allotments Will not Result in Adjacent Channel Interference Problems.	6
III. Rather than Permitting DTV Channel 6 Allottees Maximum Flexibility to Make Facilities Changes While Protecting those Allottees from Interference, The Commission Should Protect the Incumbent Noncommercial FM Reserved-Band Licensees.	9
Conclusion.	11

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Advanced Television Systems)	MM Docket No. 87-268
and Their Impact upon the)	
Existing Television Broadcast Service)	
To: The Commission		

**REPLY COMMENTS OF
NATIONAL PUBLIC RADIO, INC.**

Introduction and Summary

National Public Radio, Inc. ("NPR") hereby submits its Reply Comments in the above-captioned proceeding. Sixth Further Notice of Proposed Rulemaking, FCC 96-317, rel. Aug. 14, 1996 ["Sixth Further NPRM"].

NPR is a non-profit membership organization representing more than 550 noncommercial educational radio stations nationwide. NPR produces and distributes such acclaimed programming as *All Things Considered*, *Morning Edition*, *Talk Of The Nation*, and *Performance Today*. NPR also provides satellite interconnection, representation, and membership services to its member stations.

NPR's initial Comments in this proceeding endorsed the Commission's allotment proposal because it would have permitted the early recovery and auction of analog television channels 60-69 and the use of some portion of the proceeds to endow a long-term funding mechanism for public broadcasting.¹ NPR did so despite the Commission's proposed reliance on three channel 6 allotments and in recognition of the protracted history of channel 6 interference to and from noncommercial educational FM broadcasters.

In these Reply Comments, NPR urges the Commission to reject the Broadcasters' Modified Table.² In addition to requiring the entire analogue television spectrum, the Modified Table improperly relies on digital television (DTV) channel 6 allotments. Moreover, there are significant reasons to believe that the proposed DTV channel 6 allotments will cause substantial harm to noncommercial educational FM radio. Finally, and in any event, the Commission should reject the Broadcasters' unjustifiable request that DTV allottees be permitted to modify their facilities in any way they desire to "maximize service" while protecting the allottees from interference from others, including incumbent

¹ Letter of Delano E. Lewis, President and Chief Executive Officer, National Public Radio, Inc., MM Docket No. 87-268, filed Nov. 22, 1996.

² Broadcasters' Comments on the Sixth Notice of Proposed Rulemaking, MM Docket No. 87-268, filed Nov. 22, 1996 ("Broadcasters' Comments").

noncommercial educational FM licensees.

I. The Commission Should Reject the Modified Table Because of its Unjustified Reliance on DTV Channel 6 Allotments

In the Sixth Further NPRM, as it has at earlier stages of this proceeding, the Commission proposed to avoid, to the maximum possible extent, DTV channel 6 allotments because of the potential for interference to and from noncommercial educational FM licensees. Sixth Further NPRM at ¶¶ 73-74. Indeed, as the Commission itself recalled, the channel allotment plan it first proposed would not have required a single DTV channel 6 allotment. See id. ¶ 73 n.75 (citing Second Further Notice of Proposed Rule Making, 7 FCC Rcd. 5376 (1992)). The Commission's approach of avoiding DTV channel 6 allotments was and is appropriate as a matter of law and policy.

The channel 6 interference issue has been both vexing to the Commission and the source of contention among radio and television broadcasters and consumer electronics equipment manufacturers. See Changes in the Rules Relating to Noncommercial Educational FM Broadcast Stations, Memorandum Opinion and Order, 58 R.R.2d 629 (1985) [hereinafter "Channel 6 Memorandum Opinion and Order"]. Since 1985, the Commission has maintained stringent rules requiring noncommercial educational FM reserved-band licensees to protect the

signal of adjacent channel 6 television licensees. See id. at 630-31; 47 C.F.R. § 73.525.

That has been the case, even though the record in the Channel 6 interference proceeding established that the interference problems were primarily attributable to the inferior performance characteristics of television receivers.³ And, while the existing channel 6 interference rules have eliminated most instances of interference, that result has not been without a direct and significant cost to noncommercial educational FM radio. Indeed, despite the strong Federal interest in extending public radio service to all, 47 U.S.C. § 396(a), noncommercial educational FM radio in the United States has been severely restrained by the presence of TV channel 6 broadcasters in the spectrum immediately adjacent to the noncommercial FM reserved spectrum.

Based on this history, and because of its commitment to avoiding channel 6 allotments, the Commission must reject the Broadcasters' Modified Table.

With regard to each of the seven markets in which it proposes to allot a DTV channel 6, the Broadcasters have not even attempted to meet their burden of

³ See, e.g., Channel 6 Memorandum Opinion and Order, 58 R.R.2d 631 ("The Commission concurs with the need for receiver improvements."); Public Notice, FCC 81-340, rel. July 22, 1981 ("The problem is widely recognized as a problem in the design of the television receiving system. Television sets have been designed in such a way that under certain conditions they are unable to reject the undesired FM signal.")

demonstrating “the absence of any other readily available allotment opportunity that would meet the minimum spacing requirements.” Second Further NPRM at ¶ 74. See Broadcasters’ Comments at 46 and Appendix E. In fact, despite reciting the applicable standard, the Broadcasters simply ignore it, stating that “[t]he Modified Table assumes Channel 6, using proper engineering design and safeguards, can be used for the transition.”⁴

Apart from the specific channel 6 allotments it proposes, the Broadcasters have also failed to demonstrate (or even claim) that the Modified Table, as a whole, relies on channel 6 allotments to the minimum possible extent while achieving its other purported benefits. It may be that an alternative allotment scheme would improve on the Commission’s allotment proposal, while relying to a lesser extent, if at all, on DTV channel 6 allotments. In any event, by assuming that “Channel 6 . . . can be used for the transition”, and treating DTV channel 6

⁴ Broadcasters’ Comments at 46. See also id. at iv. (complaining about “the prospect of under-using channel[] 6”).

The Broadcasters’ proposal appears to contemplate additional DTV channel 6 allotments by virtue of its “service maximization” objective. Broadcasters’ Comments at 5. In the pursuit of this objective, for instance, the Broadcasters urge the Commission to “permit stations whose assigned DTV channels would replicate service areas but fail to replicate population to explore alternative channel assignments.” Id. Given its assumptions about using DTV channel 6, there is every reason to believe that the “alternative channel assignments” would include vacant DTV channel 6 allotments. See also Broadcasters’ Comments at 7 (requesting “the ability to make channel and facility changes with relative ease”). It is, therefore, all the more essential for the Commission to reaffirm its prohibition against the allotment of DTV channel 6.

allotments like any other, the Broadcasters have failed to demonstrate either the need for its Modified Table or its superiority to the Commission's proposal.⁵

II. The Broadcasters have Not Provided Any Evidence to Substantiate Their Claim that DTV Channel 6 Allotments Will not Result in Adjacent Channel Interference Problems

In the end, all the Broadcasters offer to justify the DTV channel 6 allotments is the "belie[f that] the lower power of DTV transmitters, the improved performance of DTV transmitter out-of-band emissions, and improved DTV receivers will reduce interference between DTV channel 6 and FM radio." Broadcasters' Comments at 46. It is not clear, however, what if any basis exists for this belief.

As an initial matter, the claim that any or some combination of these factors will actually address the issue is conjectural. It appears that neither the Broadcasters' laboratory analysis nor field testing specifically considered the impact of the DTV signal on an analog signal for adjacent channel interference.⁶ Moreover, there are significant reasons to believe that the three factors cited by the

⁶ See Broadcasters' Comments, Exhibit E; see also id. at 6 ("[F]ield tests -- the most reliable predictors of performance -- were conducted in Charlotte, NC effectively but over a relatively brief period of time and with limited power so as not to interfere with operating NTSC stations.").

Broadcasters will not effectively eliminate adjacent channel interference.

First, the lower power of the proposed DTV stations are initial power levels only. It is inevitable that when the actual signal coverage falls short of theoretical coverage expectations, DTV broadcasters will seek authority for significantly higher power levels to assure optimal service to their over-the-air viewers.

Indeed, the Broadcasters concede as much: "To preserve service in the future, as stations gradually ramp up to maximum DTV facilities, the Commission should protect DTV service contours from erosion" Broadcasters' Comments at 5.

Second, even if DTV transmitters generate less out-of-band emissions than do analogue television transmitters, the likelihood and severity of the DTV channel 6 interference problems may actually increase. Previously, instances of interference between channel 6 viewers and public radio listeners have generally been associated with high signal fields near the transmitter sites, or the susceptibility to interference of mass-produced receiving sets, rather than out-of-band emissions of the analog television transmitter. That situation could change for the worse, however, when the discrete aural carrier of the analog television channel 6 assigned to 87.7 Mhz is replaced by a wideband, high energy mask across the assigned 6 MHz of DTV channel 6. Rather than eliminating interference problems, the operational characteristics of DTV transmitters may

exacerbate them for listeners tuning in noncommercial stations in the reserved FM band starting at 88.1 MHz.

Finally, we agree that the improved DTV reception aspect of new digital TV designs may help address the interference issue since, as the Commission has previously recognized, channel 6 interference is largely attributable to television set design inadequacies.⁷ We also agree that digital coding techniques generally provide some increase in immunity from adjacent channel interference.

Nonetheless, the actual success of such coding techniques is speculative since NPR also understands that they were never part of the testing done by DTV proponents during the standards setting process. Moreover, given the intransigence of consumer electronics manufacturers on the matter of interference immunity standards,⁸ and the Commission's unwillingness to require such standards,⁹ the belief that DTV set design improvements will ameliorate the

⁷ Note 3, supra.

⁸ See Reply Comments of the Consumer Electronics Manufacturers Association, Amendment of Part 73 of the Commission's Rules to More Effectively Resolve Broadcast Blanketing Interference, Including Interference to Consumer Electronics and Other Communications Devices, MM Docket No. 96-62, filed July 25, 1996 (opposing the use of interference immunity standards as a means to address blanketing interference problems).

⁹ See Channel 6 Memorandum Opinion and Order, 59 R.R. 2d 632 (reaffirming its decision not to adopt television receiver performance criteria); Amendment of Part 73 of the Commission's Rules to More Effectively Resolve Broadcast Blanketing Interference, Including Interference to Consumer Electronics and Other Communications Devices, Notice of Proposed Rulemaking, MM Docket No. 96-62, rel. Apr. 26, 1996 (proposing to amend and reorganize the

channel 6 interference issue is highly speculative.

At a minimum, therefore, the Commission should require the Broadcasters to assess the likelihood and extent of adjacent channel interference under real world conditions. Absent such an analysis, and especially given the Commission's narrow DTV channel 6 allotment standard, the Commission is simply in no position to assess the relative merits of the proposal. Based on the current state of the record, because there is no proof of the need for the DTV channel 6 allotments proposed by the Broadcasters or a real assessment of the likelihood of adjacent channel interference, the Commission should reject the Modified Table.

III. Rather than Permitting DTV Channel 6 Allottees Maximum Flexibility to Make Facilities Changes While Protecting those Allottees from Interference, The Commission Should Protect the Incumbent Noncommercial FM Reserved-Band Licensees

Compounding the potentially substantial harm caused by the proposed DTV channel 6 allotments, the Broadcasters request virtually unfettered authority for DTV allottees to modify their facilities while enjoying interference protection

blanketing interference rules without addressing television receiver performance criteria).

from all others.

As a general rule, the Commission should approve any proposed change (whether pre-or post-adoption of a DTV table) that does not cause unaccepted additional interference to assigned NTSC or DTV stations. Throughout the transition period, DTV stations should be protected from interference up to the extent of the paired NTSC service area.

Broadcasters' Comments at 50 (footnotes omitted). The scope of the request, and its potential harm to noncommercial educational FM radio, is breathtaking.

Five decades of Commission precedent has required the "newcomer" to be responsible for resolving interference caused to an incumbent broadcaster.¹⁰ The Broadcasters would turn this precedent on its head, (1) absolving the "newcomer" DTV channel 6 allottee from any responsibility for interference caused to adjacent channel noncommercial educational FM licensees and (2) requiring the incumbent noncommercial FM licensee to bear the costs of protecting the "newcomer" DTV channel 6 allottee's signal. Such a result cannot be justified either as a matter of law or on policy grounds. It, therefore, must be rejected.

In fact, if the Commission approves the Broadcasters' Modified Table in

¹⁰ See Midnight Sun Broadcasting Co., 11 FCC 1119 (1947); see also Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act - Competitive Bidding, 10 FCC Rcd. 13821, at ¶ 41 (1995) (interference between co-equal services); In re Resolution of Interference between UHF channels 14 and 69 and Adjacent-channel Land Mobile Operations, 2 FCC Rcd. 7328, at ¶ 4 (1987) (cross-service interference).

any form, NPR urges the Commission to apply its “newcomer” policy and condition that approval on permanently protecting the noncommercial FM reserved-band. If the Broadcasters are correct, interference should not result because of the operational characteristics of DTV transmitters and receivers. Broadcasters’ Comments at 46. In any event, removing the burden on noncommercial educational FM licensees of protecting channel 6 television licensees, 47 C.F.R. § 73.525, would permit noncommercial educational FM radio to fulfill the Federal mandate to extend its service to as much of the American public as possible. 47 U.S.C. § 396(a).

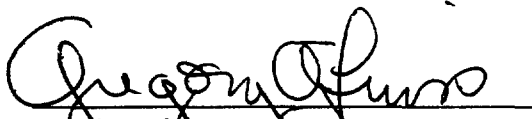
Conclusion

NPR reiterates its support for the Commission’s DTV allotment proposal and urges the Commission to reject the Broadcasters’ Modified Table. The Broadcasters’ allotment proposal improperly relies on DTV channel 6 allotments and fails to offer any evidence to substantiate its claim that DTV channel 6 interference will not occur. To the extent the Commission approves the Modified Table, it should also permanently protect the FM reserved-band so that noncommercial educational FM licensees are protected from future interference

caused to them by the DTV channel 6 licensees and absolved of future interference they might cause to a DTV channel 6 licensee.

Respectfully submitted,

NATIONAL PUBLIC RADIO, INC.

A handwritten signature in black ink, appearing to read "Neal Jackson", written over a horizontal line.

Neal Jackson

Vice President for Legal Affairs

General Counsel and Secretary

Mary Lou Joseph

Vice President, Member Services

Donald Lockett

Vice President, Engineering and

Information Technology

Michael Starling

Director, Engineering and Operations

Gregory A. Lewis

Assistant General Counsel

635 Massachusetts Avenue, N.W.

Washington, DC 20001-3753

December 23, 1996

CERTIFICATE OF SERVICE

I, Gregory A. Lewis, hereby certify that a copy of the foregoing Reply Comments of National Public Radio, Inc., dated December 23, 1996, was sent this day by first class mail, postage prepaid to the following:

*Richard M. Smith, Chief
Office of Engineering and Technology
Federal Communications Commission
2000 M Street, N.W., Room 480
Washington, D.C. 20554
Stop Code 1300

*Robert M. Pepper, Chief
Office of Plans and Policy
Federal Communications Commission
1919 M Street, N.W., 822
Washington, DC 20554
Stop Code 1000

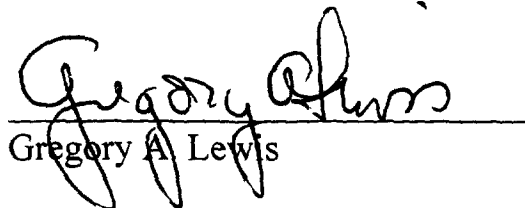
*Douglas W. Webbink, Chief
Policy and Rules Division
Federal Communications Commission
2000 M Street, N.W., Room 536
Washington, D.C. 20554
Stop Code 800D

*Roy J. Stewart, Chief
Mass Media Bureau
Federal Communications Commission
1919 M Street, N.W., Room 314
Washington, D.C. 20554
Stop Code 1800

*Saul T. Shapiro, Assistant Chief
Technology Policy
Mass Media Bureau
Federal Communications Commission
1919 M Street, N.W., Room 310
Washington, D.C. 20554
Stop Code 1800

*Bruce A. Franca, Deputy Chief
Office of Engineering and Technology
Federal Communications Commission
2000 M Street, N.W., Room 480
Washington, D.C. 20554
Stop Code 1300

Victor Tawil
Senior Vice President
Association for Maximum Service
Television, Inc.
1776 Massachusetts Avenue, N.W.
Suite 310
Washington, D.C. 20036



Gregory A. Lewis

*By Hand